

*A new species of Apus, A. longicaudatus.* By JOHN LECONTE, F.L.S.

Pale brown: *buckler* large, thin, gibbous, nearly round, carinate on the middle of the back, deeply emarginate behind, the edges of the emargination fringed with short spines: *eyes* three, simple, the two anterior larger, approximate, somewhat lunate, the third one round, placed in the middle behind the two others: *antennæ* very short, inserted near the mandibles, two-jointed, joints cylindrical, subequal, the second joint somewhat acuminate and naked at the tip: first pair of *feet*, or as they have been called, exterior antennæ, furnished with four articulated filaments; of these filaments, the outer one is longer than the body, the next half the length of the first, the third about one-third the length of the second, and the fourth very short: the other feet, amounting to ten pair, are flattened, trifid at the tip, the intermediate division being the longest, furnished on the inner side with a short branch, and externally with a broad lamina; below these feet are twelve pair of laminæ, the five anterior pair larger, the seven smaller pair reaching to the vent, which is covered by the last pair; these laminæ are complicated in their structure, and ciliate with short hairs: *tail* long, consisting of sixteen joints counting downwards from the vent, the last one the longest, somewhat coriaceous, emarginate, and ending in two long articulated naked filaments; the joints of the tail and of the filaments are furnished each with a row of small spines, which run entirely round.

Length to the end of the tail, 1·5 of an inch; of the buckler, ·65; breadth of the same, 7.

Of the habits of this animal we know but little; it was found in immense numbers in a small shallow lake on the high plateau between Lodge-pole Creek and Crow Creek, north-east of Long's Peak, in the Rocky Mountains: they were swimming about with great activity, plunging to the bottom and rising to the surface. All of them that were caught appear to be males, at least none of them have any ova attached: the common species in Europe, *A. cancriformis*, on the contrary, has never been found but of the opposite sex.—*Silliman's American Journal*, Sept. 1846.

#### *Structure of the Trunk of Cycas circinalis.*

From the examination of some old trunks of *Cycas* received from Java, Prof. Miquel draws the following conclusions:—1. The stem of *Cycas* is composed of two sorts of elementary organs, viz. *parenchymatous cells* and *dotted vessels*, agreeing in this respect with the structure of *Coniferæ*. 2. In the distribution of these elementary organs, it differs greatly from that of *Coniferæ*: the wood is disposed in irregular concentric layers, confluent at certain points, unequal, having no relation with the buds, separated by broad layers of cellular parenchyma. 3. In the development of the tissues there are several peculiarities which are not found in *Coniferæ*; for instance, in the increase of the trunk in length from the summit only, in the preponderance of parenchymatous cells, in the ligneous parts being traversed by cortical parenchyma, &c. 4. In this acrogenous growth

and by the clefts in the woody layers, there is a distant resemblance with the trunk of Ferns ; but the continuous peripheric growth is a complete distinction. 5. The structure of the trunk of *Cycas*, in all its peculiarities, more nearly resembles certain vegetables of a former epoch than of the present. The author then compares the trunk of *Cycas* with that of *Zamia* and *Encephalartos*, which have a single woody cylinder, with or without medullary rays.—*Silliman's American Journal*, Sept. 1846.

NEW WORK ON ENTOMOLOGY.

Mr. Westwood informs us that he intends commencing the publication of a new periodical work on the 1st of January, containing coloured figures and descriptions of new rare and remarkable insects, natives of India and the adjacent islands.

METEOROLOGICAL OBSERVATIONS FOR SEPT. 1846.

*Chiswick*.—September 1. Cloudy. 2, 3. Cloudless and hot. 4. Foggy: fine. 5. Very fine. 6. Cloudy. 7. Foggy: dusky haze. 8. Overcast. 9. Very fine. 10. Cloudy. 11—14. Very fine. 15. Slight fog: very fine. 16, 17. Exceedingly fine. 18. Cloudy. 19. Foggy: very fine. 20. Clear and dry air. 21, 22. Cloudy. 23. Heavy rain. 24. Uniformly overcast: cloudy: overcast. 25. Fine: cloudy: clear and fine. 26. Overcast: slight drizzle. 27. Cloudy and fine: rain. 28. Rain. 29. Clear and cool: rain. 30. Slight fog: cloudy: clear.

Mean temperature of the month .....	60°·79
Mean temperature of Sept. 1845 .....	52 ·60
Mean temperature of Sept. for the last twenty years ...	57 ·22
Average amount of rain in Sept. ....	2·73 inches.

*Boston*.—Sept. 1—3. Fine. 4, 5. Cloudy. 6. Cloudy: rain, with thunder and lightning P.M. 7. Cloudy: 2 o'clock, thermometer 77°. 8. Cloudy. 9. Cloudy: rain P.M. 10. Cloudy. 11. Fine. 12. Cloudy. 13—15. Fine. 16, 17. Foggy. 18, 19. Fine. 20, 21. Cloudy. 22. Fine. 23. Cloudy: rain early A.M.: rain A.M. 24. Foggy. 25, 26. Cloudy. 27. Fine: rain P.M. 28. Cloudy. 29, 30. Fine.

*Sandwich Manse, Orkney*.—Sept. 1. Cloudy: rain. 2, 3. Cloudy. 4. Hazy: cloudy. 5. Cloudy: fog. 6. Bright: fine. 7. Bright: fog. 8. Bright: clear: aurora. 9. Bright: clear. 10. Bright: cloudy. 11. Drizzle: damp. 12. Fine: cloudy. 13. Fog: drizzle. 14. Drizzle: damp. 15. Cloudy: drizzle. 16. Rain: cloudy. 17. Clear: cloudy. 18. Bright: clear. 19. Bright: cloudy. 20. Bright: cloudy: clear. 21. Bright: clear: aurora. 22. Bright: hoar frost: clear: aurora S. 23. Bright: cloudy. 24. Rain: cloudy: fog. 25. Clear: cloudy. 26. Cloudy. 27. Clear: cloudy: aurora. 28. Clear. 29. Cloudy: rain. 30. Bright: cloudy.

*Applegarth Manse, Dumfries-shire*.—Sept. 1, 2. Very fine harvest day. 3. Very fine harvest day, but threatening. 4. Very fine harvest day: still cloudy. 5. Very fine harvest day. 6. Very fine harvest day: thunder. 7. Very fine harvest day. 8. Rain A.M.: cleared P.M. 9—11. Fair and fine. 12. Fair and fine: thunder. 13. Fair and fine. 14, 15. Fair and fine: fog. 16. Dull day: fog. 17. Dull and threatening: fog. 18. Still fair, but cloudy. 19. Gentle rain P.M. 20. Rain A.M. 21. Fair. 22. Fair, but dull. 23. Wet A.M.: lightning. 24. Rain. 25, 26. Showers. 27. Rain all day. 28. Showers: thunder. 29. Wet all day. 30. Fair and clear.

Mean temperature of the month .....	59°·6
Mean temperature of Sept. 1845 .....	52 ·4
Mean temperature of Sept. for 23 years .....	53 ·0
Mean rain in Sept. for 18 years .....	3·25 inches.